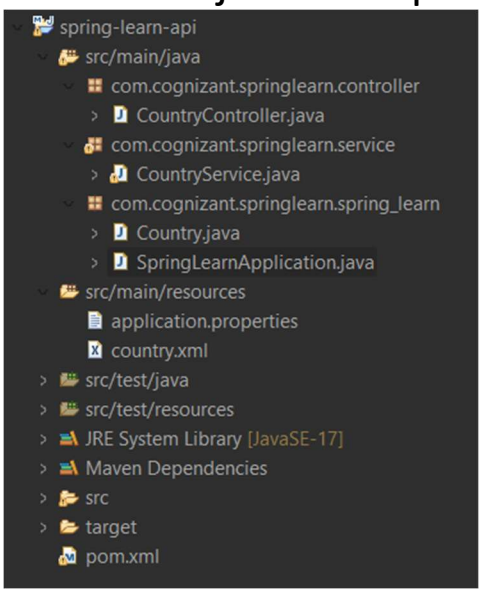
REST - Get country based on country code

Maven Project in Eclipse



Updated pom.xml with dependencies

```xml
<project xmlns="http://maven.apache.org/POM/4.0.0"
         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>
    <groupId>com.cognizant.springlearn</groupId>
    <artifactId>spring-learn-api</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <parent>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-parent</artifactId>
        <version>3.2.4</version>
        <relativePath/>
    </parent>
    <properties>
        <java.version>17</java.version>
    </properties>
    <dependencies>
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-web</artifactId>
        </dependency>
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter</artifactId>
        </dependency>
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-logging</artifactId>
        </dependency>
        <dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-context</artifactId>
    <version>6.1.6</version>
</dependency>
 </dependency>
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-context</artifactId>
</dependency>

    </dependencies>
    <build>
        <plugins>
            <plugin>
                <groupId>org.springframework.boot</groupId>
                <artifactId>spring-boot-maven-plugin</artifactId>
            </plugin>
        </plugins>
    </build>
</project>
```

Added country.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xsi:schemaLocation="http://www.springframework.org/schema/beans
           http://www.springframework.org/schema/beans/spring-beans.xsd">

    <!-- Single Country Bean -->
    <bean id="country" class="com.cognizant.springlearn.spring_learn.Country">
        <property name="code" value="IN"/>
        <property name="name" value="India"/>
    </bean>

    <!-- List of countries -->
    <bean id="countryList" class="java.util.ArrayList">
        <constructor-arg>
            <list>
                <bean class="com.cognizant.springlearn.spring_learn.Country">
                    <property name="code" value="IN"/>
                    <property name="name" value="India"/>
                </bean>
                <bean class="com.cognizant.springlearn.spring_learn.Country">
                    <property name="code" value="US"/>
                    <property name="name" value="United States"/>
                </bean>
                <bean class="com.cognizant.springlearn.spring_learn.Country">
                    <property name="code" value="JP"/>
                    <property name="name" value="Japan"/>
                </bean>
                <bean class="com.cognizant.springlearn.spring_learn.Country">
                    <property name="code" value="DE"/>
                    <property name="name" value="Germany"/>
                </bean>
            </list>
        </constructor-arg>
    </bean>
</beans>
```

Created CountryController.java class

```java
package com.cognizant.springlearn.controller;

import com.cognizant.springlearn.spring_learn.Country;
import com.cognizant.springlearn.service.CountryService;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.*;

@RestController
public class CountryController {

    @Autowired
    private CountryService countryService;

    @GetMapping("/country")
    public Country getCountryIndia() {
        return countryService.getCountry("IN");
    }

    @GetMapping("/countries/{code}")
    public Country getCountry(@PathVariable String code) {
        return countryService.getCountry(code);
    }
}
```

Created CountryService.java class

```java
package com.cognizant.springlearn.service;

import com.cognizant.springlearn.spring_learn.Country;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
import org.springframework.stereotype.Service;

import java.util.List;

@Service
public class CountryService {
    public Country getCountry(String code) {
        ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");
        List<Country> countryList = context.getBean("countryList", List.class);

        return countryList.stream()
                .filter(c -> c.getCode().equalsIgnoreCase(code))
                .findFirst()
                .orElse(null);
    }
}
```

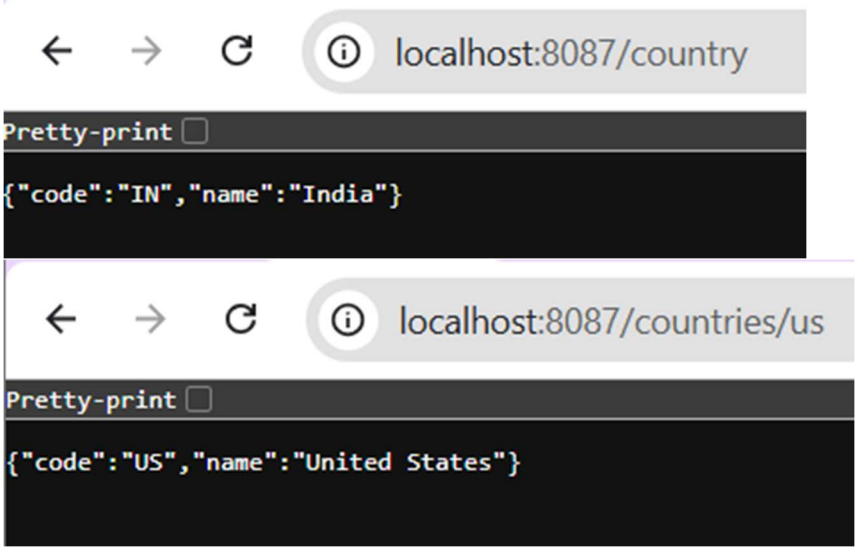
Created Country.java class

```java
package com.cognizant.springlearn.spring_learn;

public class Country {
    private String code;
    private String name;

    public Country() {
        System.out.println("Inside Country Constructor");
    }

    public String getCode() {
        return code;
    }

    public void setCode(String code) {
        this.code = code;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    @Override
    public String toString() {
        return "Country [code=" + code + ", name=" + name + "]";
    }
}
```

Created SpringLearnApplication.java class with main method

```java
package com.cognizant.springlearn.spring_learn;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication(scanBasePackages = "com.cognizant.springlearn")
public class SpringLearnApplication {
    public static void main(String[] args) {
        SpringApplication.run(SpringLearnApplication.class, args);
    }
}

```

Created application.properties and updated with the local port number as 8087 to run

```
server.port=8087

```

Runned the main() method and the required output has been received on 8087 port number the web page